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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/408,761	09/29/1999	RODERIC M. K. DALE	054800-5015	4430

7590

03/18/2002

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Washington, DC 20036

EXAMINER

ALLEN, MARIANNE P

ART UNIT

PAPER NUMBER

1631

DATE MAILED: 03/18/2002

12

Please find below and/or attached an Office communication concerning this application or proceeding.



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7590

01/30/2002

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Remail

# Office Action Summary

Application No.

09/408,761

Applicant(s)

DALE, RODERIC M. K.

Examiner

Marianne Allen

Art Unit

1631

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 34-40 and 42-46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 34-40 and 42-46 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 17.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### *Continued Examination Under 37 CFR 1.114*

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/8/01 has been entered.

Claim 41 has been cancelled. Claims 34-40 and 42-46 are under consideration by the examiner.

The art rejections of record will be withdrawn in view of the most recent amendments to the claims and the grounds of rejection set forth below. This or other art may be reapplied if the claims are amended in view of the rejections set forth below.

### *Specification*

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

The specification does not appear to disclose the limitation of claim 34 part (5) although this concept is present in original claims 10 and 12 with respect to the arrays claimed therein.

The specification does not appear to disclose the limitation of claim 40 although this concept is present in original claim 13 with respect to the arrays claimed in original claim 10.

The specification does not appear to disclose the limitation of claim 42 although this concept is present in original claim 5 with respect to the arrays claimed in original claim 1.

The specification does not appear to disclose the limitation of claim 46 although this concept is present in original claim 9 with respect to the arrays claimed in original claim 1.

***Claim Rejections - 35 USC § 112***

Claims 34-40 and 42-46 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This is a new matter rejection.

Claims 34-40 and 42-46 are not originally filed claims. These claims were originally introduced in the amendment filed 9/5/00 (amendment B, Paper No. 9) and claims 34-36, 40, and 43 were amended in the submission filed 11/8/01 (amendment D, Paper No. 21). No basis is seen for particular limitations of the claims as set forth below and no basis is seen for the subgenus of arrays (contemplation of the set of arrays with the combination of all recited characteristics) now claimed.

Claim 34 part (1) recites a length of "from about 20 to about 300 nucleotides." No basis is seen for this range. Page 6 discloses the range "from about 2 to about 300." Page 38 discloses a specific example of 20mers. However, this disclosure does not fairly provide basis or convey contemplation of the range from about 20 to about 300 nucleotides.

Claim 34 part (2) recites a group of internucleotide linkages. However, this list of internucleotide linkages is disclosed with respect to end-blocked oligonucleotides which is not a limitation of this claim. See page 13 of the specification.

Claim 34 part (4) recites a particular substitution at a 2' position of the ribose group, said substitution distinguishing said oligonucleotide from naturally occurring RNA or DNA. No basis is seen for this limitation in the originally filed claims or specification.

Claim 34 recites that the associated oligonucleotides of one area exhibit substantially the same  $T_m$  when bound to a target nucleic acid as oligonucleotides of another area of the array. No basis is seen for this limitation. Note that the nucleic acids bound to the "another area of the array" are not specified to define  $T_m$ . Secondly, the specification at page 11, lines 1-6, does disclose arrays with oligonucleotides having the same  $T_m$ ; however, this appears to be with respect to the entire array and not just selected portions of the array. (See claim 37.)

Claims 35 and 36 are directed to end blocked oligonucleotides. The claims recite exonuclease resistance compared to oligonucleotides having the same number of residues. No basis is seen for this limitation. Original claim 11 discloses this exonuclease resistance with respect to an oligonucleotide having the same length AND sequence (an unmodified counterpart, see page 8, line 19) not an oligonucleotide of merely the same length.

Claim 34 part (5) discloses a pH stability. This appears to have some basis in original claims 10 and 12 for some arrays but not with respect to the characteristics of parts (1), (2), and (4) as presently claimed. Likewise, the limitation of claim 40 appears to have some basis in original claim 13 with respect to the arrays claimed in original claim 10 but not with respect to the characteristics recited in claim 34. Likewise, the limitation of claim 42 appears to have some basis in original claim 5 with respect to the arrays claimed in original claim 1 but not with respect to the characteristics recited in claim 34. Likewise, the limitation of claim 46 appears to have some basis in original claim 9 with respect to the arrays claimed in original claim 1 but not

Art Unit: 1631

with respect to the characteristics recited in claim 34. Note that there does not appear to be any antecedent basis in the specification for these limitations as set forth above.

Applicant is requested to point out by page and line number in the specification the basis for each claimed characteristic of the array as well as basis for the subgenus of arrays having this combination of characteristics.

### ***Double Patenting***

It is noted that the claims of U.S. Patent No. 6,087,112 to Roderic M. K. Dale (same inventive entity as the instant application) are directed to arrays with very similar characteristics. Applicant is advised that a double patenting rejection may be made if the claims of the instant application are amended in view of the new matter rejection above.

It is further noted that co-pending applications 09/223,498; 09/524,092; and 09/528,404 have a common inventor with the instant application and appear to be directed to the same subject matter also. These applications were unavailable to the examiner at this time and so no determination concerning potential double patenting could be made. Applicant is requested to identify the subject matter under examination in these applications.

### ***Conclusion***

No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marianne P. Allen whose telephone number is 703-308-0666. The examiner can normally be reached on Monday-Friday, 7:00 am - 1:00 pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward can be reached on 703-308-4028. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3014 for regular communications and 703-305-3014 for After Final communications.

Application/Control Number: 09/408,761

Page 6

Art Unit: 1631

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.

  
Marianne P. Allen  
Primary Examiner  
Art Unit 1631

mpa  
January 28, 2002